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DETERMINE THE EFFICACY OF CHA 7950 WHEN APPLIED POST TO CORN IN THE US IN 2007.

Trial ID: 07S-THP-NTC-08
 Location: U.S.

Protocol ID: HZEAMXNICO0701
 Study Director: JAMES BARRENTINE
 Investigator: Dr. William G. Johnson

General Trial Information

Study Director: Vince Davis/ Kevin Westerfeld **Title:** Research Associate
Affiliation: Purdue University
Postal Code: 47907 **E-mail:** davisv@purdue.edu/ kwesterf@purdue.edu
Investigator: Dr. William G. Johnson **Title:** Associate Professor
Affiliation: Purdue University
Postal Code: 47907 **E-mail:** wgj@purdue.edu
Keywords: NICOSULFURON OD, CORN, POST, EFFICACY

Trial Location

City: Lafayette **Trial Status:** ESTABLISHED
State/Prov.: IN
Postal Code: 47909
Country: USA
Directions:
 Field 5

Objectives:

TO DETERMINE THE EFFICACY OF CHA 7950 APPLIED POST TO CORN

Cooperator/Landowner

Cooperator: Throckmorton-Purdue Ag Center (TPAC) **Country:** USA
Organization: Purdue University **Phone No:** (765) 538-3422
Address 1: 8343 US 231 South **Fax No:** (765) 538-3423
City: Lafayette
State/Prov: IN
Postal Code: 47909-9049

Crop Description

Crop 1: ZEAMX Zea mays **Description:** Corn
Variety: DKC 60-18 **Planting Date:** May/04/2007
BBCH Scale: BCOR **Rate, Unit:** 31000 S/A
Planting Method: DIRECT DRILLED
Depth, Unit: 1 IN
Row Spacing, Unit: 30 IN
Seed Bed: MEDIUM **Soil Temperature, Unit:** 65 F
Soil Moisture: Moist **Emergence Date:** May/13/2007

Pest Description

Pest 1 Type: W **Code:** SETFA **Setaria faberi**
Common Name: GIANT FOXTAIL

Site and Design

Plot Width, Unit: 10 FT **Site Type:** FIELD
Plot Length, Unit: 30 FT **Tillage Type:** NO-TILL
Replications: 4 **Study Design:** Randomized Complete Block
Soil Drainage: G Good

Maintenance

No.	Date	Maintenance Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit
1.	May/22/2007	UAN	28	%	L	56	GAL/A

Soil Description

Description Name: TPAC Field 5
% OM: 2.3 **Texture:** Silty loam
pH: 6.6 **Soil Name:** Longlois
CEC: 9.9

Analyzed By:

\&L Great Lakes Laboratories, Inc. Report #: F04048-0006

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Additional Measured Elements

Element	Quantity	Unit
K	192	PPM
Mg	260	PPM
Ca	1200	PPM

Moisture and Weather Conditions

Closest Weather Station: On research station Distance: 0.5 Unit: MI

Application Description

	A
Application Date:	May/18/2007
Time of Day:	10:30AM
Application Method:	Spray
Application Timing:	A: POST
Application Placement:	BROFOL
Applied By:	AW VM
Air Temperature, Unit:	64 F
% Relative Humidity:	52
Wind Velocity, Unit:	2 MPH
Wind Direction:	NW
Dew Presence (Y/N):	N
Water Hardness:	Hard
Soil Temperature, Unit:	55 F
Soil Moisture:	Moist
% Cloud Cover:	0

Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale:	ZEAMX BCOR
Stage Scale Used:	BBCH
Stage Majority, Percent:	VE
Height, Unit:	2 IN
Height Minimum, Maximum:	1 2

Pest Stage At Each Application

	A
Pest 1 Code, Disc., Scale:	SETFA W
Stage Majority, Percent:	3 lf
Height, Unit:	2 IN
Height Minimum, Maximum:	0.5 4
Density, Unit:	135 YD2

Application Equipment

	A
Appl. Equipment:	Backpack
Operating Pressure, Unit:	15 PSI
Nozzle Type:	XR11002
Nozzle Spacing, Unit:	15 IN
Nozzles/Row:	6
Boom Length, Unit:	7.5 FT
Boom Height, Unit:	15 IN
Ground Speed, Unit:	3 MPH
Carrier:	TPAC H2O
Spray Volume, Unit:	15 GAL/AC
Mix Size, Unit:	1.8 Liters
Propellant:	CO2

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Trial Comments

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Pest Type			W Weed	W Weed			W Weed					
Pest Code			SETFA	SETFA			SETFA					
Pest Name			Giant foxta>	Giant foxta>			Giant foxta>					
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX					
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR					
Crop Name	Corn	Corn	Corn	Corn	Corn	Corn	Corn					
Crop Variety	DKC 60-18	DKC 60-18	DKC 60-18	DKC 60-18	DKC 60-18	DKC 60-18	DKC 60-18					
Rating Date	May/25/2007	May/25/2007	May/31/2007	Jun/14/2007	Jun/14/2007	Jun/14/2007	Jun/14/2007					
Rating Data Type	PHYGEN	CONTRO	CONTRO	PHYGEN	CONTRO	PHYGEN	CONTRO					
Rating Unit	%	%	%	%	%	%	%					
Crop Stage	V1	V1	V3	V5-6	V5-6	V5-6	V5-6					
Crop Stage Scale	3"	3"	4-6"	8-16"	8-16"	8-16"	8-16"					
Pest Stage		2-5"	2-6"				1-16"					
Pest Density, Unit		100 YD2	125 YD2				200 YD2					
Footnote Number				1								
Assessed By	AW+MK+JD	AW+MK+JD	AW+KW+BN	KW+VM	KW+VM	KW+VM	KW+VM					
Rating Timing	7 DAT	7 DAT	14 DAT	28 DAT	28 DAT	28 DAT	28 DAT					
Days After First/Last Applic.	7 7	7 7	13 13	27 27	27 27	27 27	27 27					
Trt-Eval Interval	7 DA-A	7 DA-A	13 DA-A	27 DA-A	27 DA-A	27 DA-A	27 DA-A					
Plant-Eval Interval	21 DP-1	21 DP-1	27 DP-1	41 DP-1	41 DP-1	41 DP-1	41 DP-1					
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Growth Stage	Appl Code	Plot	1	2	3	4	5
1	CHA 7950	0.0117 lb ai/a	0.75 fl oz/a		2-4 " WEEDS	A	101	0.0	80.0	90.0	0.0	50.0
	COC	1 % v/v	1 % v/v		2-4 " WEEDS	A	302	0.0	67.0	73.0	6.0	55.0
	UAN	3 % v/v	3 % v/v		2-4 " WEEDS	A	305	0.0	75.0	33.0	5.0	65.0
							602	0.0	65.0	93.0	0.0	67.0
	Mean =							0.0	71.8	72.3	2.8	59.3
2	CHA 7950	0.0234 lb ai/a	1.5 fl oz/a		2-4 " WEEDS	A	102	0.0	92.0	90.0	0.0	85.0
	COC	1 % v/v	1 % v/v		2-4 " WEEDS	A	303	0.0	73.0	83.0	3.0	75.0
	UAN	3 % v/v	3 % v/v		2-4 " WEEDS	A	404	0.0	50.0	75.0	0.0	55.0
							603	0.0	85.0	93.0	0.0	75.0
	Mean =							0.0	75.0	85.3	0.8	72.5
3	CHA 7950	0.047 lb ai/a	3 fl oz/a		2-4 " WEEDS	A	103	0.0	94.0	93.0	5.0	90.0
	COC	1 % v/v	1 % v/v		2-4 " WEEDS	A	204	0.0	90.0	90.0	0.0	85.0
	UAN	3 % v/v	3 % v/v		2-4 " WEEDS	A	402	0.0	52.0	85.0	0.0	90.0
							505	0.0	40.0	87.0	7.0	93.0
	Mean =							0.0	69.0	88.8	3.0	89.5
4	ACCENT	0.0117 lb ai/a	0.25 oz/a		2-4 " WEEDS	A	104	0.0	82.0	83.0	0.0	55.0
	COC	1 % v/v	1 % v/v		2-4 " WEEDS	A	203	0.0	85.0	85.0	8.0	60.0
	UAN	3 % v/v	3 % v/v		2-4 " WEEDS	A	405	0.0	60.0	67.0	0.0	57.0
							502	0.0	35.0	77.0	10.0	67.0
	Mean =							0.0	65.5	78.0	4.5	59.8
5	ACCENT	0.0234 lb ai/a	0.5 oz/a		2-4 " WEEDS	A	105	0.0	90.0	90.0	0.0	85.0
	COC	1 % v/v	1 % v/v		2-4 " WEEDS	A	301	0.0	45.0	75.0	3.0	45.0
	UAN	3 % v/v	3 % v/v		2-4 " WEEDS	A	403	0.0	42.0	73.0	3.0	68.0
							504	0.0	42.0	83.0	3.0	85.0
	Mean =							0.0	54.8	80.3	2.3	70.8
6	ACCENT	0.047 lb ai/a	1 oz/a		2-4 " WEEDS	A	201	0.0	76.0	88.0	2.0	88.0
	COC	1 % v/v	1 % v/v		2-4 " WEEDS	A	205	0.0	82.0	83.0	0.0	88.0
	UAN	3 % v/v	3 % v/v		2-4 " WEEDS	A	501	0.0	60.0	87.0	3.0	95.0
							503	0.0	70.0	78.0	13.0	90.0
	Mean =							0.0	72.0	84.0	4.5	90.3
7	UNTREATED						202	0.0	0.0	0.0	60.0	0.0
							304	0.0	0.0	0.0	60.0	0.0
							401	0.0	0.0	0.0	55.0	0.0
							601	0.0	0.0	0.0	60.0	0.0
	Mean =							0.0	0.0	0.0	58.8	0.0

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Footnote 1: Crop injury (stunting) due to weed competition.

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Pest Name		Giant foxta>	Giant foxta>		Giant foxta>						
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX						
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR						
Crop Name	Corn	Corn	Corn	Corn	Corn						
Crop Variety	DKC 60-18	DKC 60-18	DKC 60-18	DKC 60-18	DKC 60-18						
Rating Date	May/25/2007	May/25/2007	May/31/2007	Jun/14/2007	Jun/14/2007						
Rating Data Type	PHYGEN	CONTRO	CONTRO	PHYGEN	CONTRO						
Rating Unit	%	%	%	%	%						
Crop Stage	V1	V1	V3	V5-6	V5-6						
Crop Stage Scale	3"	3"	4-6"	8-16"	8-16"						
Pest Stage		2-5"	2-6"		1-16"						
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1	CHA 7950	0.0117 lb ai/a	0.75 fl oz/a	1 % v/v	2-4 " WEEDS A	A	0.0 a	71.8 a	72.3 a	2.8 b	59.3 b
	COC	1 % v/v	1 % v/v	1 % v/v	2-4 " WEEDS A	A					
	UAN	3 % v/v	3 % v/v	3 % v/v	2-4 " WEEDS A	A					
2	CHA 7950	0.0234 lb ai/a	1.5 fl oz/a	1 % v/v	2-4 " WEEDS A	A	0.0 a	75.0 a	85.3 a	0.8 b	72.5 b
	COC	1 % v/v	1 % v/v	1 % v/v	2-4 " WEEDS A	A					
	UAN	3 % v/v	3 % v/v	3 % v/v	2-4 " WEEDS A	A					
3	CHA 7950	0.047 lb ai/a	3 fl oz/a	1 % v/v	2-4 " WEEDS A	A	0.0 a	69.0 a	88.8 a	3.0 b	89.5 a
	COC	1 % v/v	1 % v/v	1 % v/v	2-4 " WEEDS A	A					
	UAN	3 % v/v	3 % v/v	3 % v/v	2-4 " WEEDS A	A					
4	ACCENT	0.0117 lb ai/a	0.25 oz/a	1 % v/v	2-4 " WEEDS A	A	0.0 a	65.5 a	78.0 a	4.5 b	59.8 b
	COC	1 % v/v	1 % v/v	1 % v/v	2-4 " WEEDS A	A					
	UAN	3 % v/v	3 % v/v	3 % v/v	2-4 " WEEDS A	A					
5	ACCENT	0.0234 lb ai/a	0.5 oz/a	1 % v/v	2-4 " WEEDS A	A	0.0 a	54.8 a	80.3 a	2.3 b	70.8 b
	COC	1 % v/v	1 % v/v	1 % v/v	2-4 " WEEDS A	A					
	UAN	3 % v/v	3 % v/v	3 % v/v	2-4 " WEEDS A	A					
6	ACCENT	0.047 lb ai/a	1 oz/a	1 % v/v	2-4 " WEEDS A	A	0.0 a	72.0 a	84.0 a	4.5 b	90.3 a
	COC	1 % v/v	1 % v/v	1 % v/v	2-4 " WEEDS A	A					
	UAN	3 % v/v	3 % v/v	3 % v/v	2-4 " WEEDS A	A					
7	UNTREATED						0.0 a	0.0 b	0.0 b	58.8 a	0.0 c
LSD (P=.05)		0.00	21.39					15.34		5.14	13.65
Standard Deviation		0.00	14.40					10.32		3.46	9.19
CV		0.0	24.7					14.79		31.68	14.55
Bartlett's X2		0.0	6.312					16.44		8.383	12.931
P(Bartlett's X2)		.	0.277					0.006*		0.211	0.024*
Replicate F		0.000	5.100					3.248		1.927	1.493
Replicate Prob(F)		1.0000	0.0099					0.0462		0.1614	0.2502
Treatment F		0.000	13.594					36.614		148.987	44.150
Treatment Prob(F)		1.0000	0.0001					0.0001		0.0001	0.0001

Means followed by same letter do not significantly differ (P=.05, Student-Newman-Keuls)
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Footnote 1: Crop injury (stunting) due to weed competition.